c) REMARKS

The claims are 1-28 with claims 1 and 15 being independent. The claims have been amended to better define the intended invention and reconsideration thereof is expressly requested.

Claims 1 and 15 have been amended to provide that a first precursor layer of a material capable of becoming porous upon firing is formed on an intermediate transfer member. Support for this step can be found, inter alia, on specification page 12, line 25; page 18, lines 8-10; page 19, line 3 and page 20, line 13.

Thereafter, a second precursor layer comprising a material of said piezoelectric film is formed on the first precursor layer. Support for this step can be found on pages 12, 13, 18, 19, 29 and 31. Thereafter, the piezoelectric film is formed by firing the second precursor layer. Support for this step is found, inter alia, on page 13, lines 9 and 10; page 19, lines 15 and 16 and page 31, lines 11-13. The firing step also has the capacity to make the first precursor layer a (brittle) porous layer, as forth in the specification, as noted above.

The Examiner's attention is directed to the discussion on page 12, line 25 to page 13, line 15 in which it is disclosed that a precursor to the porous layer 3 is formed on an intermediate transfer member 2 and the piezoelectric film 1 (prior to firing) is formed on layer 3. It is disclosed that the porous layer becomes brittle due to heat from firing the piezoelectric film, so that the intermediate transfer member 2 can be peeled off easily. Similarly, on page 19, lines 1-12, it is disclosed that the first precursor layer (layer 3) is formed on the intermediate transfer member 2, the piezoelectric film 1, prior to firing, is

formed on the layer 3 and then the layer 3 is made porous (and brittle) by firing the piezoelectric film. Similar disclosure is found on page 31, lines 1-16.

Claims 1-3, 14, 15-17 and 28 were rejected as obvious over Kanno '862 in view of JP '739. This rejection is rendered moot because subject matter included in claim 12 has been added to claims 1 and 15.

Claims 5-10, 12, 13, 19-24, 26 and 27 were rejected as obvious over the same references, further in view of Cheung '263 and '795. Other dependent claims were rejected for the reasons set forth in paragraphs (3) and (4) on page 5 of the Office Action. Applicants will argue the patentability of the amended independent claims.

The Examiner's rejection of amended claims 1 and 15 is based in large part on the disclosure in Cheung '795 in column 7, lines 28-44 in which it is said a PZT film, such as a piezoelectric film, is transferred from an intermediate member to an acceptor substrate and wherein laser radiation causes formation of a weakened layer between the PZT film and the transfer member. The grounds of rejection are respectfully traversed.

Prior to addressing the grounds of rejection, Applicants wish to briefly review certain key features and advantages of the present claimed invention. It is a feature of the present invention that a precursor to the porous layer is applied to the intermediate transfer layer, such as a sapphire layer. The precursor to the piezoelectric layer is then applied to the precursor layer of the porous layer. Next, the piezoelectric layer is fired to complete formation of that layer, which firing inherently causes the layer 3 to become a readily fractured porous layer. Next, the piezoelectric layer is bonded to the plate, and finally, the piezoelectric layer is peeled from intermediate transfer layer by an external force, such as a water jet or the like.

It should be understood that once the piezoelectric layer is formed upon firing, no additional external energy is applied which can adversely affected its uniformity.

To the contrary, in the portions in Cheung '795 (column 7, lines 28-44), referred to by the Examiner, a PZT layer is initially grown on a sapphire layer. Next, the PZT layer is bonded to an acceptor substrate. Next, a laser is applied through the sapphire layer to weaken the interface between the PZT layer and the sapphire layer. Finally, the PZT layer is peeled from the sapphire layer. It is clear to the artisan that the use of a laser to weaken the interface between the PZT layer and the sapphire layer can adversely affect the formed PZT layer. The high laser energy can cause melting and nonuniform solidification of the PZT film thus, affecting its ultimate electrical properties.

Cheung '795 also fails to teach providing a precursor to a porous layer between the sapphire layer and the PZT layer. Cheung further fails to teach applying a PZT layer to such a precursor layer. Cheung also fails to teach firing the PZT layer to cure it and to make the precursor layer porous (and brittle).

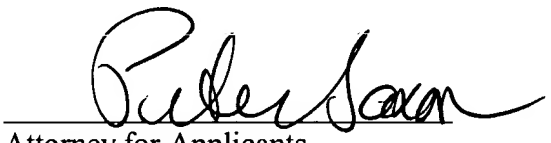
Accordingly, Cheung fails to teach key features and advantages of the present claimed invention which employs a firing step to form a porous layer between the piezoelectric and intermediate transfer layers to permit easy peeling of the piezoelectric layer from the intermediate transfer layer by destroying, collapsing or breaking the brittle porous separation layer.

Cheung, instead, relies on laser radiation to melt the interface between the PZT (GaN) layer and the sapphire layer (or the like). No separate porous layer is formed. However, application of laser to the PZT sapphire interface to weaken it, also changes the uniformity and properties of the PZT (or GaN) layer.

Accordingly, it is respectfully requested that the claims be allowed and that the case be passed to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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